

Application No.: 09/994,140

Docket No.: SONYJP 3.0-848

**IN THE DRAWINGS**

In accordance with the Examiner's request, FIG. 4 has been amended to include reference character "31" referred to in the specification.

Attachment: Replacement Sheets

REMARKS

Claims 1-11 and new claim 12 are currently pending in the application. The claims stand rejected as being anticipated by *Rallison* (U.S. Patent No. 6,369,952) ("*Rallison*") pursuant to 35 U.S.C. § 102(e). Applicants respectfully disagree. Applicants request that the Examiner reconsider the application in view of the comments herein. Applicants submit that for at least the following reasons, the Examiner has not set forth a *prima facie* case of anticipation in view of the claimed invention.

In order for an invention to be anticipated, the invention must be disclosed in the cited art reference in as much detail as claimed by Applicants. Attempting to meet that burden, the Examiner has relied on the disclosure of *Rallison* for the entirety of Applicants' audio and video reproduction apparatus. Applicants' invention includes:

- a head mounted display for converting a video signal into an image to present to a user;
- a pair of acoustic transducers each used for converting an audio signal into a sound to present to the user;
- detection means for detecting an orientation of the head of the user;
- image-changing means for changing the video signal supplied to the head-mounted display in accordance with the orientation of the head of the user; and
- sound-image localization processing means for changing a sound-image localized position of the audio signal reproduced by the acoustic transducers in accordance with the orientation of the head of the user.

Significantly, in relation to the sound-image localization processing means, the Examiner has merely relied on the left and right speakers and associated cable inputs of the head-mounted personal visual display with image generator disclosed by *Rallison* at col. 17, lines 23-30, Fig. 17A and reference characters 505 and 503. But those references do not describe all of the details of Applicants' claimed invention. Simply put, there is no indication that the reference discloses Applicants' sound-image localization processing means for changing a sound-image localized position of the audio signal reproduced by the acoustic transducers in accordance with the orientation of the head of the user.

To be sure, *Rallison* does disclose the use of a "head position tracker component" to provide an indication of "the orientation of the head." *Rallison*, col. 4, lines 16-19. However, the Examiner has not cited to any indication that the orientation of the head is used for changing the sound-image of the audio signal in accordance with that orientation. Indeed, in view of the cited disclosure of *Rallison* it appears that only the visually displayed image is changed as a consequence of the orientation of the head of its user determined by the head position tracker component. *Rallison*, col. 2, lines 18-26. No such application is cited in that disclosure with respect to the audio signals in the *Rallison* system and merely having left and right ear speaker signals as cited in *Rallison* is not Applicants' invention.

Accordingly, Applicants respectfully submit that for at least these reasons, claim 1 is in condition for allowance as all of the claimed features are not cited in the *Rallison* reference. Moreover, claims 2-11, which depend from claim 1, for at least the stated reasons are similarly in condition for allowance.

Finally, Applicant has added new claim 12. The subject matter of new claim 12 may be compared to the subject matter of claim 1. To this end, claim 12 defines an audio and video reproduction apparatus, including, at least:

a head mounted display that converts a video signal into an image to present to a user;

a pair of acoustic transducers that converts an audio signal into a sound to present to the user;

magnetic or gyroscopic head orientation detector that determines changing orientation of the head of the user;

image-changing processor configured to change the video signal supplied to the head-mounted display as a function of the changing orientation of the head of the user as detected by the head orientation detector; and

sound-image localization processor  
configured to change a sound-image localized  
position of the audio signal reproduced by the  
acoustic transducers as a function of the  
changing orientation of the head of the user as  
detected by the head orientation detector.

Like the subject matter of claim 1, Applicants submit that this claim is in condition for allowance.

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited.

If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he/she telephone applicant's

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attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: July 28, 2006

Respectfully submitted,

By 

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